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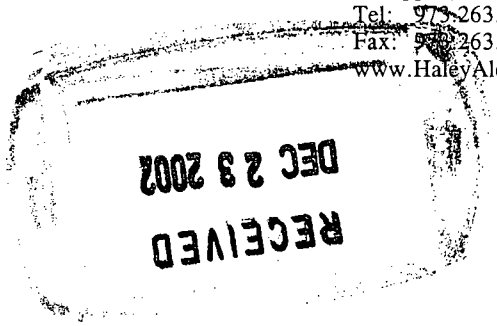
Letter of Transmittal



Date	20 December 2002
File Number	28629-013
From	Jenny M. Liu

To	New Jersey Department of Environmental Protection Bureau of Environmental Evaluation and Cleanup Responsibility Assessment P.O. Box 432 401 East State Street Trenton, NJ 08625
Attention	Mr. Joseph Nowak
Copy to	Hexcel Corporation; Attn: A. William Nosil Norris McLaughlin & Marcus, PA; Attn: Edward A. Hogan, Esq.
Subject	Hexcel Facility, Lodi, NJ

Copies	Date	Description
3	12/20/2002	Proposed River Bank and Sediment Sampling Work Plan

Transmitted via ☐ First class mail ☒ Overnight express ☐ Hand delivery ☐ Other

Remarks

Dear Mr. Nowak:

Enclosed is the original and two copies of Hexcel's Proposed River Bank and Sediment Sampling Work Plan. Please call if you have any questions.

Happy Holidays!

Jenny Liu

SDMS Document
88195

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20 December 2002
File No. 28629-013

Joseph J. Nowak
New Jersey Department of Environmental Protection
Bureau of Environmental Evaluation and Cleanup Responsibility Assessment
P.O. Box 432
401 East State Street
Trenton, New Jersey 08625

Subject: Proposed River Bank and Sediment Sampling Work Plan
Hexcel Corporation
Lodi Borough, Bergen County, New Jersey
ISRA Case No. 86009

Dear Mr. Nowak:

On behalf of Hexcel Corporation (Hexcel), Haley & Aldrich, Inc. (Haley & Aldrich) is providing this Proposed River Bank and Sediment Sampling Work Plan (RBSSWP) in response to a letter, dated 9 October 2002, from the New Jersey Department of Environmental Protection (NJDEP). In accordance with N.J.A.C. 7:26E Technical Requirements for Site Remediation and the NJDEP's November 1998 "Guidance For Sediment Quality Evaluation," this RBSSWP proposes river sediment sampling and analyses to delineate contamination in the Saddle River that may be attributable to the Hexcel Site. Figure 1 provides a plan of the Hexcel Site and vicinity. The work proposed in this RBSSWP is intended to supplement the results of our October 1997 sediment sampling program, our September 1998 river bed investigation, and sediment sampling conducted by others. A copy of NJDEP's 9 October 2002 letter is provided in Appendix A.

The sediment sampling programs proposed for the Saddle River adjacent to the Hexcel Site and near a storm sewer outfall are consolidated into one field program in this RBSSWP. Hexcel has agreed to conduct further investigation of sediments in the vicinity of a storm sewer outfall, located approximately 750 feet south and downstream of the Site, due to the detection of polychlorinated biphenyls (PCBs) in sediments (see Hexcel's May 2002 Remedial Action Workplan Addendum, dated 31 May 2002). The NJDEP, in a letter dated 20 November 2001, previously approved seven surface water sampling locations adjacent to the Hexcel Site as proposed in Hexcel's November 1999 Remedial Action Workplan Addendum. The NJDEP-approved surface water sampling locations are referenced in this RBSSWP because the surface water sampling program will be performed in conjunction with the proposed sediment sampling program. The simultaneous implementation of both surface water and sediment sampling is in accordance with NJDEP guidance documents.

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This RBSSWP is divided into following sections:

1) Previous Sampling Program

   I) Hexcel Site
      A) River Bed Investigation
      B) Surface Water Sampling Program
      C) Sediment and Surface Water Sampling Conducted by Others

   II) Storm Sewer Outfall
      A) Sediment Sampling Program

2) Proposed Scope of Work

   I) Sediment Sampling Program
      A) Hexcel Site
      B) Storm Sewer Outfall
      C) Sediment Sampling Protocol

   II) Surface Water Sampling Program

1. PREVIOUS SAMPLING PROGRAMS

This section discusses the previous sampling programs conducted for the two Areas of Concern (AOCs), namely, i) the Hexcel Site and ii) the storm sewer outfall.

I. Hexcel Site

A. River Bed Investigation

Hexcel conducted a river bed investigation and sediment sampling program in the Saddle River across from on-site monitoring well MW-8 in September 1998. The purpose of the river bed investigation was to address NJDEP's concern regarding the potential migration of dense non-aqueous phase liquid (DNAPL) beneath the Saddle River in the vicinity of monitoring well MW-8 (Figure 2). The investigation consisted of nine test borings (ST-1 through ST-9) completed to a depth of approximately 6.5 to 7.0 feet below the river bed. The locations of the test borings are shown on Figure 2. Sediment samples, collected from each boring at depths ranging from 3.5 to 6.5 feet, were analyzed for Volatile Organics (VOs). The analytical results for the sediment samples suggest that DNAPL has not migrated beneath the Saddle River in the vicinity of monitoring well MW-8. Specifically, the VO concentrations detected in sediment samples collected immediately adjacent to the Hexcel Site were not indicative of product, and VOs were not detected in the sediment samples collected furthest from the Site. A summary of the sediment quality data is provided in Table I. The river bed

investigation is detailed in Hexcel's 23 October 1998 quarterly progress report. The laboratory analytical data are summarized in the 26 January 1999 progress report. Based on the results of the river bed investigation, the NJDEP, in its letter dated 20 November 2001, approved no further investigation of groundwater quality across the Saddle River from the Hexcel Site.

B. Surface Water Sampling Program

Hexcel collected two surface water samples from the Saddle River in June 1985. The samples (STREAM W-1 and STREAM W-2) were collected by Princeton Aqua Science (PAS). The samples were analyzed for VOs, acid-extractable and base/neutral organics (AEs and B/Ns), priority pollutant metals, pesticides, PCBs, phenols, and cyanides. Site-specific contaminants of concern, namely VOs and PCBs, were not detected in the two surface water samples. A summary of the surface water quality data is provided in Table II. The 1985 surface water sampling results were presented previously in Hexcel's March 1997 "Summary of Historical Groundwater Data." Hexcel, in its 28 August 2002 report to the NJDEP, proposed to test surface water samples for VOs and PCBs. Additionally, based on the groundwater quality data for samples collected from monitoring wells located along the Saddle River and comparison to State and Federal Surface Water Quality Criteria, Hexcel proposed that analyses for metals and semi-volatile organics not be required. Hexcel is currently awaiting NJDEP's approval of the proposal.

C. Sediment and Surface Water Sampling Conducted by Others

Napp Technologies, Inc. (Napp), located adjacent to the Hexcel Site, has conducted sediment and surface water sampling in the Saddle River upstream, alongside, and downstream from the Napp Site. Napp analyzed surface water samples for VOs, copper, lead, and zinc (additional priority pollutant metals may have been analyzed but these non-detected results were not provided to Hexcel). The surface water samples tested by Napp detected chlorinated VOs, copper, and zinc in all samples; benzene in the majority of the samples; and lead in one duplicate sample. Napp analyzed sediment samples for PCBs and priority pollutant metals. Aroclors 1242 and 1254 were detected in one shallow (0 to 0.3 feet below ground surface) sediment sample collected adjacent to Napp's boundary with Hexcel. Napp collected three upstream sediment samples (two in 1995-1996 and one in 2002) across from the Hexcel Site (upstream from the Napp site): total PCBs were detected in two samples, one upstream of the Hexcel Site and one at the downstream end of the Hexcel site, and PCBs were non-detect in one sample collected adjacent to the Hexcel bank. PCBs were also not detected in remaining sediment samples collected by Napp. A portion of Napp's sampling locations deemed relevant to this RBSSWP are presented in Figures 2 and 3, and the associated analytical data are summarized in Tables II and III for surface water and sediment samples, respectively. Only PCB results are presented in Table III, because metals are not a contaminant of concern at the Hexcel Site. Napp provided Hexcel with

the analytical results for sediment and surface water sampling conducted in 2002. We understand that Napp is in the process of preparing a submittal of their results for NJDEP.

II. Storm Sewer Outfall

A. Sediment Sampling Program

Hexcel previously conducted a sediment sampling program along the eastern bank of the Saddle River in the vicinity of the sewer outfall pipe to which the Hexcel storm sewer system is believed to be connected in addition to potential discharges from sources other than Hexcel. The samples were collected in October 1997 to evaluate whether discharge from the outfall may have deposited PCBs in the river sediment. The program consisted of seven sampling stations (S1 through S7). The locations of the sediment sampling stations are shown on Figure 3. Two samples were collected at each station at depths of 0 to 6 inches and 6 to 12 inches, respectively. Samples were analyzed for PCBs and total organic carbon (TOC). In addition, grain size analysis by sieve testing and hydrometer testing was conducted on the samples. A summary of the sediment quality data is provided in Table III. Hexcel presented the results of the sediment sampling program and sediment sampling conducted by other consultants and the U.S. Army Corps of Engineers (USACE) in the quarterly progress report dated 28 January 1998. Based on these results and NJDEP's requirements, Hexcel, in its Remedial Action Workplan Addendum dated 31 May 2002, proposed further investigation of the sediments. This RBSSWP details the proposed additional investigation.

2. PROPOSED SCOPE OF WORK

This RBSSWP is consistent with N.J.A.C. 7:26E Technical Requirements for Site Remediation and the NJDEP's November 1998 "Guidance For Sediment Quality Evaluation" as well as previous communications regarding the 1997 sediment sampling program at the Hexcel Site between Haley & Aldrich, Greg Newman of NJDEP Environmental Toxicology and Risk Assessment Section (ETRA), and yourself. Based on our current understanding of Site conditions, we propose the following tasks:

I. Sediment Sampling Program

The purpose of the proposed sediment sampling program is to supplement the existing data set, delineate the extent of sediment contamination, and distinguish potential Site impacts to the Saddle River from those impacts unrelated to the Site. The areas targeted for sampling and characterization are located upstream, alongside, and downstream from the Hexcel Site and from the storm sewer outfall pipe, which is located approximately 750 feet south and downstream of the Site. Hexcel proposes to collect sediment samples from a total of 15

station locations in the Saddle River. The proposed locations of the sediment sampling stations are shown on Figure 2 for the Hexcel Site and Figure 3 for the storm sewer outfall and are described below:

A. Hexcel Site

Seven stations, designated "SED-1" through "SED-7", will be correspond with the surface water sampling locations previously approved by NJDEP, as discussed above (Figure 2). Proposed stations SED-1 through SED-5 are located approximately 100 feet apart and span the length of the Site along the Saddle River. Given our current knowledge of the nature and extent of contamination at the Site, proposed stations SED-6 and SED-7, located upstream of the Site, should provide site-specific background samples.

B. Storm Sewer Outfall

Four stations, designated "SED-12" through "SED-15", will attempt to replicate the locations of previous sampling stations S1, S2, S4, and S5, respectively (Figure 3). Samples collected at stations SED-12 through SED-15 will help to evaluate whether flood events and other processes may have resulted in changes in sediment quality since the 1997 sampling program. Stations SED-14, SED-13, and SED-12 will be located approximately 30, 75, and 150 feet, respectively, downstream of the sewer outfall. Proposed station SED-15 is located approximately 25 feet upstream of the outfall. Previously-collected sediment samples S5, S6, S7, P3, and SED-DOWN are considered to be background samples representing local sediment quality conditions in this reach of the Saddle River; PCBs were not detected in these background samples. However, because sediment quality may have changed since samples were previously collected, proposed station SED-15 will provide site-specific background samples for the outfall location.

Two stations, designated "SED-8" and "SED-9", will be located further downstream of station S1 (Figure 3). Station SED-8 is planned to be located approximately 225 feet downstream from the outfall and 100 feet downstream of station S1. Proposed station SED-9 is located 50 feet downstream of station S1. Station S1 was the sampling location furthest downstream from the outfall in the 1997 sampling program. Sample S-1, collected from a depth of 6 to 12 inches at station S1, indicated the highest PCB concentration in sediment during the October 1997 sampling event.

Two stations, designated "SED-10" and "SED-11," will be located cross-gradient to station S1 and the outfall near the opposite shore (Figure 3). Proposed station SED-10 is located further downstream, approximately 150 feet from the outfall and 35 feet southwest of station S1. Proposed station SED-11 is located approximately 100 feet from the outfall near the western bank of the river.

C. Sediment Sampling Protocol

This portion of the Saddle River has slow- to moderate-flowing, shallow, wadeable waters. Since contamination in aquatic systems generally occurs in depositional areas, it is desirable to target areas of slow-moving water where fine sediments accumulate preferentially. This section of the Saddle River has a fairly straight channel and limited areas of fine-sediment deposition. The results of sediment particle size analyses from the 1997 sampling program, test boring logs from the 1998 river bed investigation, and the USACE's *Interim Report on Flood Protection Feasibility, Lower Saddle River, Bergen Co., N.J.*, dated August 1984, confirm the absence of major depositional environments in the Saddle River adjacent to and immediately downstream from the Hexcel Site and storm sewer outfall.

Samples will be collected from depositional areas (i.e., near river banks) or smaller-scale depositional environments, such as eddies or localized banks, to the extent possible. Fallen trees and other debris seen along the river bank during a site reconnaissance may provide minor depositional areas from which to collect samples. The sampling program will be conducted during a period of low stream water levels to expose depositional environments. To minimize recovery loss due to passing the sampler through the water column, sediment samples will be collected from locations that may not be submerged at the time of sampling but are submerged at some time during the year.

Downstream samples will be collected first, starting at proposed station SED-8, followed by subsequent upstream samples. At the Hexcel Site, the proposed surface water samples will be collected prior to the sediment samples to avoid incorporation of disturbed sediment. Sediment core samples will be collected to maintain undisturbed samples and vertical profiles of the sediment layers. Sampling devices will be decontaminated between samples. Sample locations will be documented using a Global Positioning System (GPS) unit and taping of distances along the riverbank from fixed site features. Photographs will be taken to document river surface and sediment conditions before and during sampling.

Up to two sediment samples from each station will be collected, with the exception of proposed stations SED-12, SED-13, and SED-14. The upper 6 inches at each location will be sampled to support characterization of potential ecological risks in the biotic zone. Subsurface core samples from 6 to 12 inches will be collected to the extent possible to characterize historical discharges, if present, that may be overlain by more recent sediment deposits. In the vicinity of the storm sewer outfall, previous analytical results for deeper sediments (collected from 6 to 12 inches depth) indicate significantly higher concentrations of PCBs than shallow sediments (collected from the surface to 6 inches depth) at the same location (Table III). Therefore, proposed samples at stations SED-12, SED-13, and SED-14 (analogous to locations S1, S2, and S4, respectively, of the 1997 sediment sampling program) will be collected from depths up to 18 inches.

Sediment samples will be submitted to a NJDEP certified analytical testing laboratory for chemical analyses. At the Hexcel Site (stations SED-1 through SED-7), samples will be analyzed for PCBs, VO+10 including dichlorobenzenes and acetone, TOC, pH, and grain size analysis by sieve testing. At the storm sewer outfall (stations SED-8 through SED-15), samples will be submitted for PCBs, TOC, pH, and grain size analyses. A summary of proposed sampling and testing rationale is provided in Table IV.

II. Surface Water Sampling Program

The purpose of the proposed surface water sampling program is to determine whether surface water may have been impacted by contaminants migrating from the Site or a release of contaminants from sediment. Surface water samples from seven locations in the Saddle River are planned. The seven surface water sampling locations were previously approved by NJDEP in a letter dated 20 November 2001. The surface water samples will be collected in conjunction with the proposed sediment samples at the Hexcel Site, in accordance with NJDEP Guidance. The approximate surface water sample locations are shown on Figure 2.

The surface water samples will be collected during low stream water levels to minimize dilution processes. Samples will be collected from downstream to upstream locations, starting at proposed sampling location SW-1, prior to the collection of sediment samples to avoid incorporation of disturbed sediment. Surface water samples will be collected from estimated mid-depth in the water column. Due to the shallow nature of the Saddle River, grab samples are deemed to be appropriate. Dedicated beakers will be used. Sample locations will be documented using a GPS unit and taping of distances along the riverbank from fixed site features. Photographs will be taken to document river surface and sediment conditions before and during sampling. Any outfalls or other potential migration pathways from the Site or adjacent properties seen during the sampling program will be documented.

Surface water samples will be submitted to a NJDEP certified analytical testing laboratory for the following additional chemical analyses: PCBs, VO+10 including dichlorobenzenes and acetone, pH, dissolved oxygen, and total hardness. Hexcel proposed in its 28 August 2002 report to the NJDEP that analyses for metals and semi-volatile organics not be required for the surface water samples, based on the groundwater quality data for samples collected from monitoring wells located along the Saddle River and comparison to State and Federal Surface Water Quality Criteria. Hexcel is currently awaiting NJDEP's approval of the proposal.

One field duplicate and one trip blank per sample shipment will be collected as part of our quality assurance/quality control (QA/QC) program. The field duplicate will be submitted for laboratory analysis for PCBs, VO+10 including dichlorobenzenes and acetone, pH, dissolved oxygen, and total hardness. Trip blank(s) will be submitted for analysis for VO+10 including dichlorobenzenes and acetone. A summary of proposed sampling and testing rationale is provided in Table IV.

Following an assessment of the laboratory analytical results for the surface water samples, Haley & Aldrich will determine whether a second surface water sampling event will be necessary to account for seasonal or short-term flow and water quality fluctuations in the Saddle River.

Hexcel will implement this RBSSWP during seasonal low water conditions upon NJDEP's approval of the plan. In the interim, please do not hesitate to contact us if you have questions or comments during your review of the plan.

Sincerely yours,
HALEY & ALDRICH, INC.

Jenny Liu
Project Scientist

Joseph G. Savarese
Project Manager

c: Hexcel Corporation; Attn: A. William Nosil
Norris McLaughlin & Marcus, PA; Attn: Edward A. Hogan, Esq.

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HALEY & ALDRICH

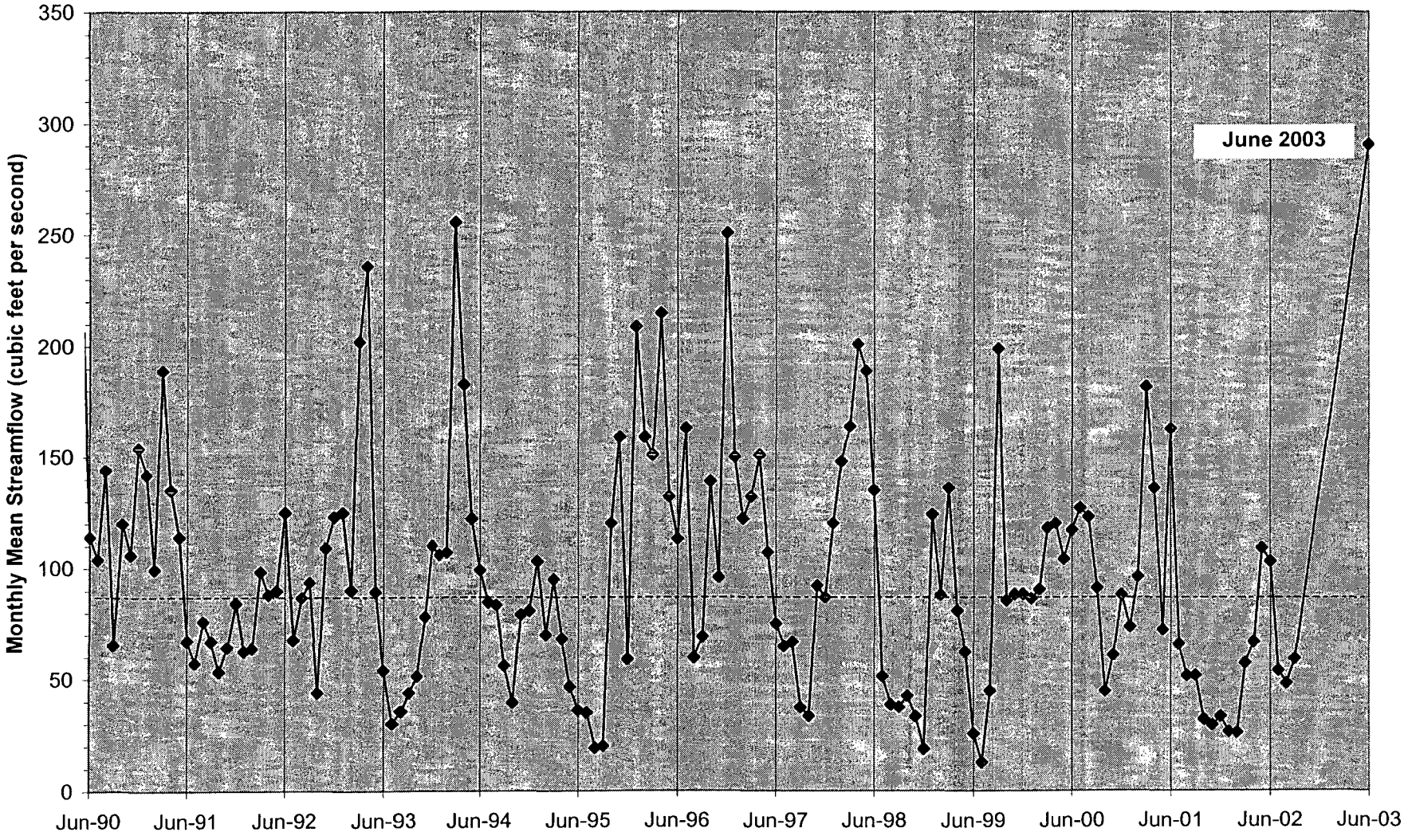
List of Tables, Figures and Appendices

Tables

Figures

Appendices

U.S. Geological Survey, Water Resources Data
USGS 01391500 SADDLE RIVER AT LODI NJ
June 1990 to September 2002 and June 2003



Note: Dashed line represents the monthly mean streamflow for June from 1924 to 2002. June 2003 data are provisional and subject to revision.

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U.S. Geological Survey, Water Resources Data
STATION: USGS 01391500 SADDLE RIVER AT LODI NJ

Date	Daily Mean Discharge (cubic feet per second)
6/1/03	899
6/2/03	267
6/3/03	152
6/4/03	512
6/5/03	547
6/6/03	221
6/7/03	293
6/8/03	322
6/9/03	185
6/10/03	154
6/11/03	136
6/12/03	255
6/13/03	801
6/14/03	400
6/15/03	304
6/16/03	193
6/17/03	160
6/18/03	241
6/19/03	177
6/20/03	222
6/21/03	377
6/22/03	692
6/23/03	261
6/24/03	190
6/25/03	161
6/26/03	144
6/27/03	130
6/28/03	117
6/29/03	109
6/30/03	110
June 2003 average	291

Data retrieved: 2003-07-02 13:30:23 EDT

Note:
These data were obtained from the automated U.S. Geological Survey database and have not received the Director's approval and as such are provisional and subject to revision.

Water Resources

Data Category: Surface Water | Geographic Area: New Jersey | GO

Monthly Streamflow Statistics for New Jersey

USGS 01391500 SADDLE RIVER AT LODI NJ

Available data for this site: Surface-water: Monthly streamflow statistics | GO

Bergen County, New Jersey
Hydrologic Unit Code 02030103
Latitude 40°53'25", Longitude 74°04'51" NAD27
Drainage area 54.60 square miles
Gage datum 25.00 feet above sea level NGVD29

Output formats

HTML table of all data
Tab-separated data
Reselect output format

YEAR	Monthly mean streamflow, in ft^3/s											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1923										42.5	37.2	108
1924	140	98.4	127	208	194	65.4	49.2	32.4	37.3	57.9	37.9	50.7
1925	34.9	183	167	87.6	75.8	35.6	54.8	39.5	33.5	46.2	79.6	96.0
1926	66.8	128	181	117	57.4	37.1	28.5	51.0	49.4	60.1	117	93.0
1927	85.8	115	108	77.1	92.5	48.8	73.4	154	187	188	175	170
1928	115	180	138	143	116	134	180	141	111	54.3	50.2	54.5
1929	80.9	129	172	178	133	59.8	29.4	21.3	37.9	48.3	50.3	75.3
1930	88.2	92.4	104	98.9	59.5	47.2	25.0	32.0	24.3	18.7	72.8	52.8
1931	57.9	82.1	96.5	129	131	109	44.9	33.3	27.4	22.9	30.2	42.2
1932	70.2	87.4	104	111	63.2	35.1	25.2	18.6	11.4	37.5	164	82.4
1933	78.8	102	155	217	101	69.5	68.1	123	171	82.8	56.5	64.6
1934	121	48.5	152	172	115	80.0	32.8	26.3	92.2	105	71.9	94.4
1935	90.1	118	114	78.5	50.2	38.4	33.6	16.5	25.4	16.5	52.7	34.1
1936	117	53.1	323	206	88.0	71.4	32.0	28.4	31.7	71.3	43.4	121
1937	190	155	117	124	135	62.7	35.1	71.0	66.7	68.6	126	114
1938	153	123	96.4	114	81.1	115	170	77.2	174	75.6	69.9	172
1939	118	218	216	218	80.0	40.3	29.5	26.5	20.1	23.6	41.8	29.9
1940	55.2	50.8	188	246	140	141	54.5	41.1	45.7	38.1	92.4	91.4
1941	77.9	140	108	98.7	44.9	48.4	47.0	35.1	20.5	20.3	36.6	66.5
1942	59.3	102	192	103	74.7	43.9	55.4	195	90.1	85.5	121	146
1943	133	161	163	108	105	64.4	51.6	30.7	27.4	90.3	132	53.0

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1944	98.3	96.0	188	235	110	53.2	24.0	19.3	61.5	29.3	84.8	102
1945	84.7	113	192	128	194	106	371	170	141	84.5	116	167
1946	149	88.3	139	76.1	168	157	112	105	79.3	71.5	51.5	49.3
1947	73.4	69.4	152	164	202	155	92.1	47.3	32.2	25.6	136	64.6
1948	62.7	115	217	182	170	149	59.4	48.3	21.3	24.5	41.3	67.2
1949	193	143	114	140	108	33.9	32.0	25.4	25.6	23.0	25.9	40.8
1950	46.3	86.4	112	81.4	81.3	49.7	70.0	43.4	32.2	27.8	73.2	148
1951	130	214	248	240	108	89.3	70.2	95.7	42.6	77.1	196	178
1952	188	163	214	262	188	198	74.9	93.9	97.3	39.0	84.2	153
1953	195	134	333	293	149	65.3	51.1	25.6	19.7	26.9	41.1	91.3
1954	48.7	60.8	95.0	86.5	132	42.0	25.3	43.6	161	55.9	144	139
1955	87.7	122	136	100	56.1	60.0	32.9	225	71.4	257	184	78.3
1956	74.6	137	149	165	115	71.3	72.5	38.0	59.3	36.4	117	119
1957	73.7	107	118	194	73.4	38.4	28.7	33.2	34.7	49.1	57.8	171
1958	232	158	244	271	196	68.6	52.1	45.0	51.6	86.6	91.0	69.6
1959	77.8	79.4	122	106	63.3	72.6	46.0	68.2	50.7	95.9	94.5	142
1960	139	179	114	163	98.9	53.8	98.6	119	146	75.1	78.8	68.1
1961	89.5	183	248	249	133	65.5	95.3	72.8	50.6	39.4	54.2	69.8
1962	102	86.4	188	170	65.5	67.5	34.6	68.9	48.6	99.6	128	90.1
1963	75.7	90.7	179	72.0	74.1	46.2	48.3	35.5	38.9	25.9	93.3	55.0
1964	134	99.7	113	151	71.9	61.6	54.3	25.9	18.9	26.0	32.1	60.3
1965	43.1	138	72.6	70.1	46.2	31.8	24.1	71.3	39.3	49.7	26.7	32.9
1966	33.9	83.6	113	53.5	72.5	35.6	14.1	15.1	75.0	63.3	95.6	65.8
1967	94.1	84.5	202	127	129	70.3	92.3	105	45.2	63.2	65.2	161
1968	86.9	82.0	145	90.4	173	175	59.6	43.5	46.4	33.3	71.6	103
1969	49.0	52.8	129	147	96.7	64.5	115	129	82.1	59.9	82.4	108
1970	61.9	204	100	197	74.5	49.2	41.4	41.8	26.2	34.7	81.7	41.0
1971	42.4	177	167	99.5	70.5	56.1	56.2	183	256	102	130	106
1972	88.3	113	205	139	203	336	202	72.6	52.0	81.4	240	224
1973	158	258	151	203	136	137	104	70.3	57.5	54.9	39.9	206
1974	138	112	137	193	114	91.0	39.1	55.8	154	56.6	51.1	115
1975	136	135	146	125	130	120	165	94.8	223	179	173	132
1976	196	168	127	138	106	90.2	106	86.8	72.9	120	53.4	65.6
1977	46.4	132	241	176	75.1	104	41.1	50.2	55.7	80.5	284	240
1978	246	95.5	199	129	202	102	56.3	127	44.9	25.8	33.4	78.0
1979	331	164	196	148	182	86.5	50.7	57.7	84.4	124	106	93.4
1980	69.6	38.1	179	322	125	51.6	32.7	27.5	24.6	31.5	37.9	17.0
1981	12.1	112	40.1	44.4	111	35.8	57.1	19.7	29.1	35.9	25.5	57.5
1982	111	153	83.5	135	68.4	142	. 64.4	47.0	47.7	28.1	42.9	30.2
1983	57.6	66.4	283	457	184	112	54.9	53.9	42.8	84.8	86.2	301

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1984	105	170	180	376	315	177	295	75.4	75.9	64.4	57.5	70.4
1985	49.1	63.6	44.3	32.9	77.4	65.0	50.1	67.4	83.7	51.4	115	91.5
1986	118	155	128	146	76.3	76.9	78.6	114	50.6	47.6	117	152
1987	129	99.5	157	247	100	69.9	72.3	91.8	123	107	89.3	89.7
1988	80.8	141	108	74.7	118	54.1	108	52.3	55.6	43.5	151	65.0
1989	60.0	73.2	101	124	314	168	108	81.5	131	151	102	60.6
1990	117	111	107	119	233	114	104	144	65.6	120	106	154
1991	142	99.4	189	135	114	67.3	57.3	75.9	67.0	53.4	64.4	84.1
1992	62.6	63.9	98.4	88.0	89.7	125	67.7	86.8	93.5	43.9	109	123
1993	125	90.0	202	236	89.4	54.0	30.1	35.7	43.9	51.4	78.2	110
1994	106	107	256	183	122	98.9	84.6	83.3	56.1	39.6	79.0	80.7
1995	103	69.8	94.9	68.2	46.6	36.1	35.1	19.3	20.2	120	159	59.0
1996	209	159	151	215	132	113	163	59.7	69.0	139	95.8	251
1997	150	122	132	151	107	74.9	64.8	66.6	37.3	33.5	92.0	86.8
1998	120	148	164	201	189	135	51.2	38.6	37.4	42.5	33.3	18.7
1999	124	87.8	136	80.6	62.1	25.5	12.9	44.6	199	85.2	88.0	88.3
2000	86.2	90.3	118	120	104	117	127	123	91.1	44.5	60.9	87.9
2001	73.5	96.1	182	136	72.1	163	65.7	51.5	51.7	31.9	29.4	33.3
2002	26.3	26.0	57.3	66.6	109	103	53.8	48.1	59.1			
Mean of monthly streamflows	105	117	154	154	117	85.8	71.8	67.8	68.8	64.7	87.8	99.0

Questions about data gs-w-nj_NWISWeb_Data_Inquiries@usgs.gov Top
Feedback on this website gs-w-nj_NWISWeb_Maintainer@usgs.gov Explanation of terms
Surface Water data for New Jersey: Monthly Streamflow Statistics
http://waterdata.usgs.gov/nj/nwis/monthly?

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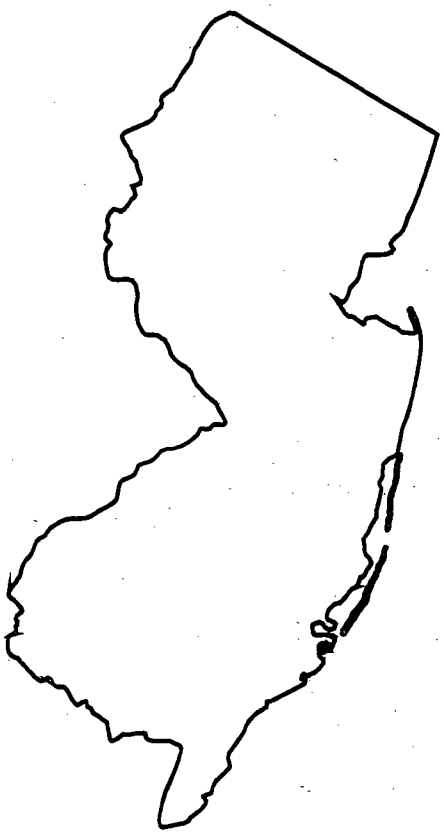
Volume 1. Surface-Water Data

Water-Data Report NJ-01-1



U.S. Department of the Interior
U.S. Geological Survey

Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies

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01391500 SADDLE RIVER AT LODI, NJ

LOCATION.--Lat 40°53'25", long 74°04'51", Bergen County, Hydrologic Unit 02030103, on left bank 560 ft upstream from bridge on Outwater Lane in Lodi and 3.2 mi upstream from mouth.

DRAINAGE AREA.--54.6 mi^2.

PERIOD OF RECORD.--September 1923 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1031: 1940(M). WSP 1552: 1929(M), 1936(M), 1938. WRD-NJ 1969: 1967. WRD- NJ 1970: 1968, 1969.

GAGE.--Water-stage recorder. Concrete control since Nov. 2, 1938. Datum of gage is 25.00 ft above sea level. Prior to Nov. 2, 1938, at site 560 ft downstream at datum 2.54 ft lower.

REMARKS.--Records fair. Occasional regulation at low flow. Diversion upstream from station at Paramus by United Water New Jersey, for municipal supply (see Hackensack River Basin, diversions). The flow past this station is affected by pumpage from wells by United Water New Jersey and others. Several measurements of water temperature were made during the year. Satellite telemetry] at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 17	1830	1,480	5.13	Jun 17	1415	*1,860	*5.85
Mar 30	1400	1,590	5.36	Jun 24	0045	1,460	5.09

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	30	46	61	110	89	211	81	58	108	32	35
2	57	29	38	58	101	86	178	75	735	141	30	30
3	54	28	36	56	94	85	155	62	215	77	42	25
4	55	24	36	57	81	81	142	58	121	75	31	24
5	56	30	35	56	82	93	135	57	97	128	30	25
6	59	31	34	57	100	93	143	57	86	135	28	24
7	54	23	33	55	95	96	140	55	78	78	24	23
8	51	26	31	57	86	98	136	55	73	179	28	21
9	51	26	27	64	81	128	159	58	68	111	33	20
10	52	292	30	57	114	112	374	58	65	80	61	76
11	49	78	31	55	118	105	164	53	64	94	40	43
12	48	48	28	54	87	101	167	48	64	63	77	29
13	48	41	29	53	81	355	145	49	60	53	155	22
14	47	63	169	53	80	186	129	51	54	49	128	173
15	46	84	80	66	84	133	121	53	43	51	75	48
16	44	48	79	69	98	117	120	54	49	47	35	29
17	33	51	708	67	127	140	128	54	935	46	30	27
18	61	34	297	63	89	143	130	49	210	45	31	24
19	53	33	118	147	80	112	111	43	111	43	32	22
20	39	33	98	158	77	102	106	38	89	42	126	61
21	37	34	87	100	81	193	105	53	89	38	65	203
22	42	34	79	79	78	669	136	263	84	36	29	51
23	39	34	73	71	79	282	107	141	325	38	64	34
24	30	32	70	68	75	171	100	73	548	34	100	31
25	30	31	66	66	134	145	96	56	147	31	44	241
26	30	276	62	63	167	139	93	67	107	42	33	69
27	32	156	62	64	114	130	89	130	92	38	31	43
28	30	68	61	62	99	119	87	113	84	34	31	36
29	32	55	59	60	---	113	82	102	75	35	27	32
30	34	55	47	149	---	877	82	75	73	35	25	31
31	28	---	77	135	---	335	---	54	---	31	80	---
TOTAL	1378	1827	2726	2280	2692	5628	4071	2235	4899	2037	1597	1552
MEAN	44.5	60.9	87.9	73.5	96.1	182	136	72.1	163	65.7	51.5	51.7
MAX	61	292	708	158	167	877	374	263	935	179	155	241
MIN	28	23	27	53	75	81	82	38	43	31	24	20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2001, BY WATER YEAR (WY)

MEAN	65.1	88.6	99.8	106	118	155	155	117	85.6	72.0	68.0	69.0
MAX	257	284	301	331	258	333	457	315	336	371	225	256
(WY)	1956	1978	1984	1979	1973	1953	1983	1984	1972	1945	1955	1971
MIN	16.5	25.5	17.0	12.1	38.1	40.1	32.9	44.9	25.5	12.9	15.1	11.4
(WY)	1936	1982	1981	1981	1980	1981	1985	1941	1999	1999	1966	1932

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TABLE III
SUMMARY OF SEDIMENT QUALITY DATA: POLYCHLORINATED BIPHENYLS
SADDLE RIVER
HEXCEL CORPORATION
LODI BOROUGH, BERGEN COUNTY, NEW JERSEY
ISRA CASE NO. 86009

Sample ID		S-1		S-1		S-2		S-2		S-3		S-3		S-4		S-4		S-5		S-5		S-6		S-6		S-7		S-7		FIELD BLANK*	
Sample Date		10/10/1997		10/10/1997		10/10/1997		10/10/1997		10/10/1997		10/10/1997		10/10/1997		10/10/1997		10/10/1997		10/10/1997		10/10/1997		10/10/1997		10/10/1997		10/10/1997		10/10/1997	
Sample Depth		0 to 6"		6 to 12"		0 to 6"		6 to 12"		0 to 6"		6 to 12"		0 to 8"		6 to 12"		0 to 6"		6 to 12"		0 to 6"		6 to 12"		0 to 6"		6 to 12"			
Collected By:		H&A		H&A		H&A		H&A		H&A		H&A		H&A		H&A		H&A		H&A		H&A		H&A		H&A		H&A			
Laboratory ID		274170		274171		274172		274173		274175		274174		274176		274177		274178		274179		274180		274181		274182		274183		274050	
	Units	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL
PCBs																															
Aroclor-1016	ug/Kg	—	63	—	6200	—	59	—	59	—	58	—	58	—	60	—	64	—	59	—	58	—	62	—	59	—	67	—	64	—	1
Aroclor-1221	ug/Kg	—	120	—	12000	—	120	—	12	—	12	—	12	—	120	—	130	—	120	—	120	—	120	—	120	—	130	—	130	—	2
Aroclor-1232	ug/Kg	—	63	—	6200	—	59	—	59	—	58	—	58	—	60	—	64	—	59	—	58	—	62	—	59	—	67	—	64	—	1
Aroclor-1242	ug/Kg	2700		300000		550		2500		130		47 J		560		1100		—	59	—	58	—	62	—	59	—	130	—	64	—	1
Aroclor-1248	ug/Kg	—	63	—	6200	—	59	—	59	—	58	—	58	—	60	—	64	—	59	—	58	—	62	—	59	—	67	—	64	—	1
Aroclor-1254	ug/Kg	—	63	—	6200	—	59	—	59	—	58	—	58	—	60	—	64	—	59	—	58	—	62	—	59	—	67	—	64	—	1
Aroclor-1260	ug/Kg	—	63	—	6200	—	59	—	59	—	58	—	58	—	60	—	64	—	59	—	58	—	62	—	59	—	67	—	64	—	1
Total PCBs	ug/Kg	2700		300000		550		2500		130		47 J		560		1100		—		—		—		—		—		—		—	
TOC	mg/Kg	896		584		1410		708		453		656		964		460		857		325		367		737		1080		918		—	1

Sample ID		SDSR-SS01		SDSR-SS02		SED-UP		SED-DOWN		P-1		P-2		P-3		ENSR_SED-4A		ENSR_SED-4B		ENSR_SED-5A		ENSR_SED-5B		ELM_SED-4		ELM_SED-5		ELM_SED-6		ELM_SED-9 (DUP SED-6)	
Sample Date		Jun-87		Jun-87		4/28/1995		4/28/1995		9/27/1996		9/27/1996		9/27/1996		7/16/1998		7/16/1998		7/16/1998		7/16/1998		3/28/2002		3/28/2002		3/28/2002		3/28/2002	
Sample Depth						0 TO 6"		0 TO 6"		0 TO 6"		0 TO 6"		0 TO 6"		0 TO 3.6"		3.6" TO 7.2"		0 TO 3.6"		3.6" TO 7.2"		0 TO 6"		0 TO 6"		0 TO 6"		0 TO 6"	
Collected By:		ENVIRON		ENVIRON		ENSR		ENSR		ENSR		ENSR		ENSR		ENSR		ENSR		ENSR		ENSR		ELM		ELM		ELM		ELM	
Laboratory ID						23861		23862		63789		63790		63791										341089		341090		341091		341092	
	Units	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL
PCBs																															
Aroclor-1016	ug/Kg																							—	86	—	88	—	89	—	89
Aroclor-1221	ug/Kg																							—	86	—	88	—	89	—	89
Aroclor-1232	ug/Kg																							—	86	—	88	—	89	—	89
Aroclor-1242	ug/Kg															—		—		390		—		—	86	—	88	—	89	—	89
Aroclor-1248	ug/Kg																							—	86	—	88	—	89	—	89
Aroclor-1254	ug/Kg															—		—		820		—		—	86	—	88	—	89	—	89
Aroclor-1260	ug/Kg																							—	86	—	88	—	89	—	89
Total PCBs	ug/Kg	300		2400		200		—		160		—	81	—	83	—		—		1210		—		—		—		—		—	
TOC	mg/Kg					7450		6570																							

Sample ID		Site#1		Site#2		Site#3		Site#4		Site#5		Site#6		Site#7		Site#8	
Sample Date		Dec-83		Dec-83		Dec-83		Dec-83		Dec-83		Dec-83		Dec-83		Dec-83	
Sample Depth																	
Collected By:		Army Corps		Army Corps		Army Corps		Army Corps		Army Corps		Army Corps		Army Corps		Army Corps	
Laboratory ID																	
	Units	Result	MDL														
PCBs																	
Aroclor-1016	ug/Kg																
Aroclor-1221	ug/Kg																
Aroclor-1232	ug/Kg																
Aroclor-1242	ug/Kg																
Aroclor-1248	ug/Kg																
Aroclor-1254	ug/Kg																
Aroclor-1260	ug/Kg																
Total PCBs	ug/Kg	20		80		370		80		40		–		110		210	
TOC	mg/Kg	11073		8907		7989		5176		8345		15240		14147		27174	

Notes:
Samples S-1 through S-8 were collected by Haley & Aldrich, Inc. for Hexcel Corp.
Samples SDSR-SS01 and SDSR-SS02 were collected by Environ for Hexcel Corp. (Reference: *Summary Report of Preliminary Environmental Sampling at the Fine Organics Corp.*Oct. 1987)
Samples P-1 through P-3 were collected by ENSR for Napp Technologies, Inc. (Reference: *Remedial Investigation Report/Remedial Investigation Workplan Addendum*,June 1997)
Samples ENSR_SED-4 and ENSR_SED-5 were collected by ENSR for Napp Technologies, Inc. (Preliminary results provided by ELM.)
Samples ELM_SED-4 through ELM_SED-9 were collected by Environmental Liability Management, Inc. (ELM) for Napp Technologies, Inc. The "ELM_" prefix was added to sample designations by Haley & Aldrich, Inc. (Preliminary results provided by ELM.)
Samples SED-UP and SED-DOWN were collected by ENSR for Napp Technologies, Inc. (Reference: Figure C-3, *Remedial Investigation Report*,Feb. 1996)
Samples Site#1 through Site#8 were collected by the U.S. Army Corps of Engineers (Reference: *Interim Report on Flood Protection Feasibility Lower Saddle River, Bergen Co, N.J.*Aug. 1984)
J: Estimated Concentration.
*: The reporting units for the H&A Field Blank collected on 10/10/97 are ug/L for PCBs and mg/L for TOC.
Blank spaces for testing results and MDLs indicate that the data are not available.
— : The compound was not detected. The laboratory method detection limit (MDL), if available, is provided next to the testing result.

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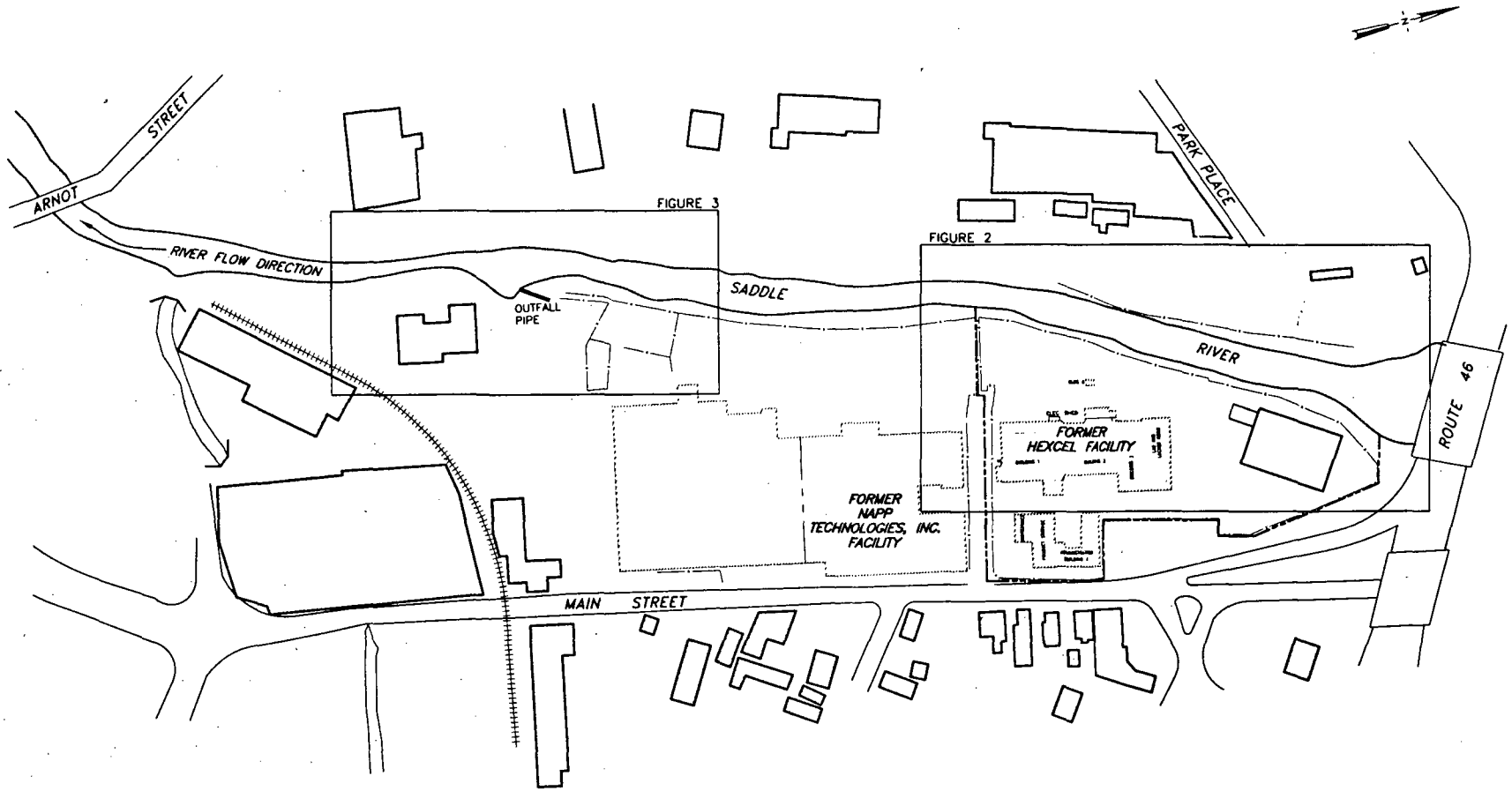

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NOTES:

1.) BASE PLAN FROM "DELINEATION OF FLOODWAY AND FLOOD HAZARD AREA", BY THE STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF WATER RESOURCES, PLATE No. 2, DATED FEBRUARY 1986.

2.) BUILDING LOCATIONS ARE APPROXIMATE.

3.) FORMER BUILDINGS, INDICATED WITH GRAY LINES, HAVE BEEN DEMOLISHED.

0 150 300

APPROXIMATE SCALE IN FEET

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

HEXCEL FACILITY
LODI, NEW JERSEY

SITE PLAN

SCALE: AS SHOWN

DECEMBER 2002

FIGURE 1

FILE: 28629-013 B17

TABLE IV
SUMMARY OF PROPOSED SAMPLING AND TESTING RATIONALE
PROPOSED RIVER BANK AND SEDIMENT SAMPLING WORK PLAN
HEXCEL CORPORATION
LODI BOROUGH, BERGEN COUNTY, NEW JERSEY
ISRA CASE NO. 86009

Location Designation	Medium	Sample Depth (inches)	Proposed Testing	Rationale
Hexcel Site				
SED-1 through SED-5	Sediment	0-6	VO+10*, PCBs, TOC, pH, grain size	Assess extent of sediment contamination along Site.
	Sediment	6-12	VO+10*, PCBs, TOC, pH, grain size	
SW-1 through SW-5	Surface Water	NA	VO+10*, PCBs, pH, DO, hardness	Assess extent of surface water contamination along Site.
SED-6 through SED-7	Sediment	0-6	VO+10*, PCBs, TOC, pH, grain size	Collect upstream control sample for sediment.
	Sediment	6-12	VO+10*, PCBs, TOC, pH, grain size	
SW-6 through SW-7	Surface Water	NA	VO+10*, PCBs, pH, DO, hardness	Collect upstream control sample for surface water.
Field Duplicate	Surface Water	NA	VO+10*, PCBs, pH, DO, hardness	Quality assurance/quality control.
Trip Blank	Surface Water	NA	VO+10*	Quality assurance/quality control.
Storm Sewer Outfall				
SED-8	Sediment	0-6	PCBs, TOC, pH, grain size	Assess extent of sediment/surface water contamination
	Sediment	6-12	PCBs, TOC, pH, grain size	downstream of storm sewer outfall.
SED-9 and SED-10	Sediment	0-6	PCBs, TOC, pH, grain size	Delineate potential PCB "hot spot" in sediment at station S1.
	Sediment	6-12	PCBs, TOC, pH, grain size	
SED-11	Sediment	0-6	PCBs, TOC, pH, grain size	Delineate PCB contamination in sediment in Saddle River
	Sediment	6-12	PCBs, TOC, pH, grain size	across from storm sewer outfall.
SED-12 through SED-14	Sediment	0-6	PCBs, TOC, pH, grain size	Characterize PCBs in sediment near outfall,
	Sediment	6-12	PCBs, TOC, pH, grain size	and confirm 1997 analytical results to evaluate
	Sediment	12-18**	PCBs, TOC, pH, grain size	sediment mobility and current conditions.
SED-15	Sediment	0-6	PCBs, TOC, pH, grain size	Collect upstream control sample for sediment,
	Sediment	6-12	PCBs, TOC, pH, grain size	and confirm 1997 analytical results.

NOTES & ABBREVIATIONS:
1. Proposed locations of sediment and surface water samples in the Saddle River are shown on Figure 2 (Hexcel Site) and Figure 3 (Storm Sewer Outfall).
2. VO: Volatile Organics.
3. PCBs: Polychlorinated Biphenyls.
4. TOC: Total Organic Carbon.
5. DO: Dissolved oxygen.
6. *: Dichlorobenzenes and acetone to be included as part of the VO scan.
7. NA: Not applicable.
8. **: Sediments will be sampled to a depth of 18 inches or the top of natural soils, whichever is less.

TABLE I

SUMMARY OF SEDIMENT QUALITY DATA: VOLATILE ORGANICS

SADDLE RIVER

HEXCEL CORPORATION

LODI BOROUGH, BERGEN COUNTY, NEW JERSEY

ISRA CASE NO. 86009

All results are in parts per million (ppm)

Boring ID	**ST-1**	**ST-2**	**ST-3**	**ST-4**	**ST-5**	**ST-6**	**ST-7**	**ST-8**	**ST-9**
Sample Date	9/23/98	9/23/98	9/23/98	9/24/98	9/24/98	9/24/98	9/24/98	9/24/98	9/23/98
Sample Depth (feet)	4.5-5.0	4.7-5.2	5.5-6.0	6.0-6.5	5.5-6.0	5.0-5.5	5.0-5.5	4.7-5.2	3.5-4.0
Parameter									
Methylene Chloride	0.16 JB	0.15 JB	0.15 JB	0.15 JB	0.14 JB	0.14 JB	0.15 JB	0.16 JB	0.13 JB
Benzene	0.082 J					0.4			0.091 J
Chlorobenzene	1.8	0.27 J				5.3			4.8
Vinyl Chloride						0.11 J			
cis-1,2-DCE						0.12 J			
Toluene									0.24 J
Non-Targeted VOs		1.6						1	

Notes:

Blank cell indicates that the parameter was not detected.

J: Indicates estimated concentration.

B: Indicates compound also detected in Blank.

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TABLE II
SUMMARY OF SURFACE WATER QUALITY DATA
SADDLE RIVER
HEXCEL CORPORATION
LODI BOROUGH, BERGEN COUNTY, NEW JERSEY
ISRA CASE NO. 86009

Sample ID		STREAM W-1		STREAM W-2		ENSR_SW-4		ENSR_SW-5		ENSR_SW-6		ELM_SW-4		ELM_SW-5		ELM_SW-6		ELM_SW-9 (DUP SW-6)	
Sample Date		6/1/1985		6/1/1985		7/16/1998		7/16/1998		7/16/1998		3/28/2002		3/28/2002		3/28/2002		3/28/2002	
Collected By:		PAS		PAS		ENSR		ENSR		ENSR		ELM		ELM		ELM		ELM	
Laboratory ID		W-1-40315*		W-2-40314*								341117		341118		341118		341118	
	Units	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL
Volatile Organics																			
Benzene	ug/L	—	5	—	5	0.8		0.6		0.3		0.4		—	0.2	—	0.2	—	0.2
Chlorobenzene	ug/L	—	5	—	5	3		2.7		1.8		2.5		0.9		0.5		0.4	
Chloroform	ug/L	—	5	—	5	0.3		0.3		0.3		—	0.2	—	0.2	—	0.2	—	0.2
cis-1,2-Dichloroethylene	ug/L	—	5	—	5							0.3		0.3		—	0.2	0.3	
Tetrachloroethylene	ug/L	—	5	—	5	0.6		0.6		0.7		1.2		1.3		1.2		1.2	
Vinyl Chloride	ug/L	—	5	—	5							—	0.2	—	0.2	—	0.2	—	0.2
Acid-Extractable Organics		—	NA	—	NA	NR		NR		NR		NR		NR		NR		NR	
Base/Neutral Organics						NR		NR		NR		NR		NR		NR		NR	
Bis(2-ethylhexyl)phthalate	ug/L	53		79															
Priority Pollutant Metals																			
Copper	ug/L	—	7	—	7	13.8		12		12.9		NR		NR		NR		NR	
Lead	ug/L	—	20	—	20							—	2.2	—	2.2	—	2.2	2.5	
Zinc	ug/L	30		20		24.6		23		22.6		NR		NR		NR		NR	
Pesticides		—	NA	—	NA	NR		NR		NR		NR		NR		NR		NR	
PCBs		—	NA	—	NA	NR		NR		NR		NR		NR		NR		NR	
Phenols						NR		NR		NR		NR		NR		NR		NR	
Phenol	mg/L	0.005		0.003															
Cyanides		—	NA	—	NA	NR		NR		NR		NR		NR		NR		NR	

Notes:
Samples STREAM W-1 and STREAM W-2 were collected by Princeton Aqua Science for Hexcel Corp.
Samples ENSR_SW-4 through ENSR_SW-6 were collected by ENSR for Napp Technologies, Inc.
Samples ELM_SW-4 and ELM_SW-5 were collected by Environmental Liability Management, Inc. (ELM) for Napp Technologies, Inc.
Preliminary results for samples collected by ENSR and ELM provided by ELM. The "ELM_" prefix was added to ELM's sample designations by Haley & Aldrich, Inc.
*: Indicates Sample ID used by Haley & Aldrich.
— : The compound was not detected. The laboratory method detection limit (MDL), if available, is provided next to the testing result.
Blank spaces for testing results or MDLs indicate that the data are not available.
NA: Not applicable.
NR: Not analyzed.
Bis(2-ethylhexyl)phthalate was detected in all groundwater samples collected in 1988;
Environ (on behalf of Hexcel Corp.) had classified the presence of this compounds as
"ubiquitous in the environment and sometimes associated with the sampling gloves and/or equipment."

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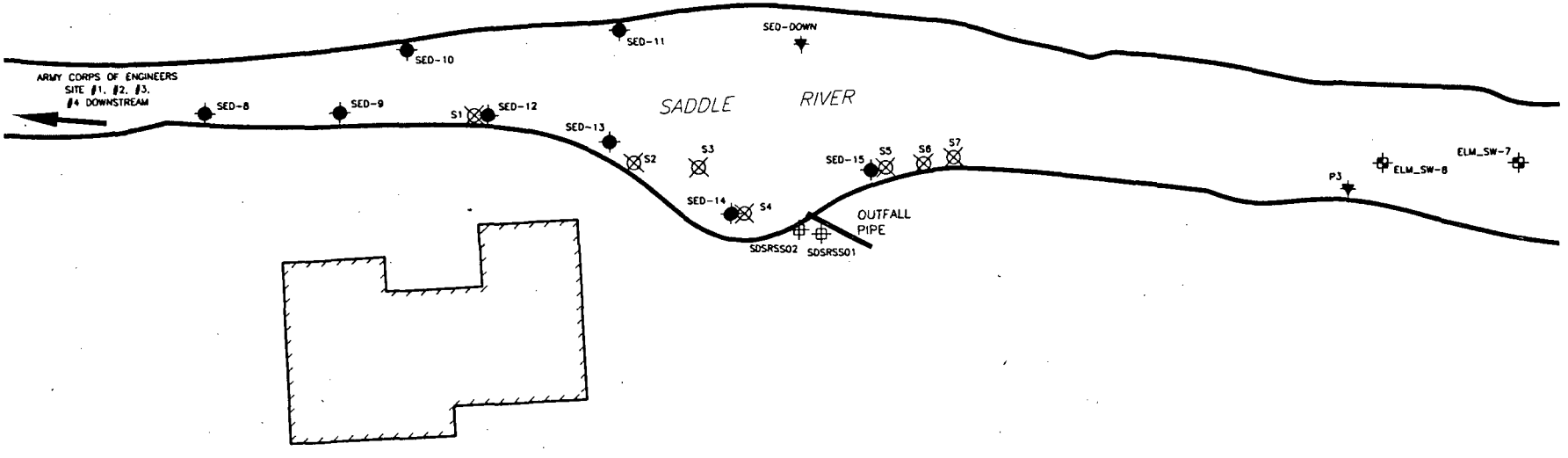

LEGEND

- SEDIMENT SAMPLE COLLECTED BY HALEY & ALDRICH, INC. OCTOBER 10, 1997
- SEDIMENT SAMPLE COLLECTED BY ENVIRON JUNE 1987
- SEDIMENT SAMPLE COLLECTED BY ENSR APRIL 1995 AND SEPTEMBER 1998
- SEDIMENT SAMPLE COLLECTED BY ELM MARCH 2002
- PROPOSED SEDIMENT SAMPLE LOCATION

NOTES:

1.) BASE PLAN FROM "DELINEATION OF FLOODWAY AND FLOOD HAZARD AREA", BY THE STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF WATER RESOURCES, PLATE No. 2, DATED FEBRUARY 1986.

2.) BUILDING LOCATIONS ARE APPROXIMATE.

3.) APPROXIMATE LOCATIONS OF SAMPLES COLLECTED BY ENVIRONMENTAL LIABILITY MANAGEMENT, INC. (ELM) AND ENSR PROVIDED BY ELM AND ENSR.

0 40 80
APPROXIMATE SCALE IN FEET

HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

HEXCEL FACILITY
LODI, NEW JERSEY

PROPOSED SEDIMENT SAMPLE LOCATION PLAN: STORM SEWER OUTFALL

SCALE: AS SHOWN DECEMBER 2002

FIGURE 3

FILE: 28529-013 B19